56

AGRICULTURE & ALLIED ARTS IN VEDIC INDIA

341 B

117

Agri General

-8-

Page 40

18.5 12.5 65

by

A. K. YEGNA NARAYAN AIYER

Rs. 2-8

AGRICULTURE & ALLIED ARTS
IN
VEDIC INDIA

8/3

BY

RAJASEVASAKTA
A. K. YEGNA NARAYAN AIYER
M.A. (Madras), N.D.D. (Eng.), Dip.Agric. (Cantab.)
Director of Agriculture in Mysore (Retired)
Chairman, Policy Committee for Agriculture,
Mysore Economic Conference
Author of 'Field Crops of India'
'Principles of Crop Husbandry in India'
'Milk and Milk Products'
and
'Feeds and Fodders'
Chief Editor, 'Indian Dairyman,' etc., etc.

BANGALORE CITY :
PRINTED AT THE BANGALORE PRESS, MYSORE ROAD
1949

PREFACE

THE study embodied in this little book is based upon the hymns or Samhita portion of the Rig, Yajur, Sama and Atharva Vedas and not on their elaboration as contained in the Brahmanas or Upanishads. For the Rig Veda, I have availed myself of the English translation by H. H. Wilson (*Rig Veda Sanhita*, by H. H. Wilson, M.A., F.R.S., Vols. I to VI, published by the Bangalore Printing and Publishing Co., Ltd., Bangalore City). For the other three Vedas, I have depended upon the Tamil translations by Ashriar M. R. Jambunathan (Jambunathan Book Depot, Madras), the talented scholar who has laid the whole of Tamilnad under a deep debt of gratitude, by translating into Tamil not only the Vedas, but also many other works of our sacred literature. I am deeply indebted and grateful to these eminent scholars. This brief account of the special agricultural and other features of Vedic life is only pieced together by means of inferences from the numerous similes and illustrations in which the hymns abound and not, except in a very few cases, from any direct descriptions. Most of the inferences are of an obvious character but a few are not equally so. I trust that such inferences as I have drawn will not be considered too far-fetched. In any case, I have quoted the hymns or parts of the hymns which bear upon each and have also given the references to the original in the respective Vedas, so that readers can judge for themselves.

Vedic studies by scholars have generally related to the exposition of the highly philosophic and recondite speculations on the mystery of life and the universe, such

as one finds in that inexhaustible mine of wisdom the Upanishads, or the Vedanta, but I have not dared to dig into that mine. I have only gathered the pebbles on the surface and put them together arranged, so to speak, in a show cabinet. The story they tell is very much 'of the earth, earthy'. I have ventured to add a few observations here and there based upon my own experience, which are also of the same character and which I hope will add to the interest of the story without being in any way inappropriate.

CONTENTS

PAGES

PREFACE iii

I. AGRICULTURE.

Types of Land—Rain and Water Sources—Fields and Lay-out—The Seasons—The Rains Begin and Bring Unbounded Joy—Ploughs and Ploughing—Seeds and Sowing—Rotation of Crops—Crops Cultivated—Harvesting of Crops—Pruning—Storage—Pests and Diseases—How was the Produce Consumed?—Was Flesh Food Eaten?—The Status of Agriculture—The Status of the Agriculturist or Tiller of the Land—The Flora of Vedic Times—Paucity of Crops Mentioned—The Soma Plant and Soma Juice—The Vedic Fauna—The Cow in Vedic India—The Horse 1–49

II. URBAN LIFE AND ALLIED ARTS AND CRAFTS

Villages, Towns and Cities—Ships and Sea Voyages—The Weaver—The Carpenter and Wheelwright—The Tanner and Leather Worker—Workers in Precious Metals and Jewellers — Traders — The Physician — The Potter—The Barber—The Mosaic of Vedic Society 50–65

Note.—The references to the Vedic text are indicated in abbreviation, thus: As regards the Rig Veda: R., Rig Veda, first figure in Roman numeral indicating the number of the Mandala, the second and third figures in Arabic numerals indicating the number of the Anuvaka and of the Sukta respectively, fourth and following figures if any the number of the hymn or hymns therein. As regards the Yajur Veda: Y., Yajur Veda, second figure in Arabic numeral indicating the number of the Anuvaka, and third and following figures, if any, the number of the hymn or hymns therein. As regards the Atharva Veda: Ath., Atharva Veda, second, third and following figures, if any, as in Yajur.

Thus:—

R., VII. 3. 17. 3 stands for Rig Veda, Mandala VII, Anuvaka 3, Sukta 17, Hymn 3.

Y., 147. 1 stands for Yajur Veda, Anuvaka 147, Hymn 1.

Ath., 119. 6 stands for Atharva Veda, Anuvaka 119, Hymn 6.

SECTION I

AGRICULTURE

TYPES OF LAND

THE tracts of country which the Aryan settlers traversed as they spread out, conquered and colonised, have been closely observed with an eye to their agricultural and pastoral value, such as their surface configuration, nature of the soils, facilities for the supply of water and the general natural fertility or possibilities under cultivation. No colonists seeking new homes could have bestowed more attention to such factors nor even in these days can one seeking to invest in landed estates be said to look more closely into the several aspects of its suitability, for the raising of food. In a general and comprehensive way, regions which are fertile and yield abundance are prayed for thus: "Land rich with milk and wet with honey and ghee" (Y., 189. 20). "The fertile earth yielding abundance" (R., I. 18. 5. 5). "The Sindhu (the country watered by the Sindhu river) is rich in horses, chariots, clothes, gold ornaments well made, rich in food, rich in wool, and abounding in *Silama* plants" (*Silama* plants are said to yield fibre for making ropes for tying ploughs) (R., X. 6. 7. 8). In fact, in a large number of hymns the prayer is for land flowing with milk and honey.

Among the kinds of regions which are particularised and mentioned are: tracts in the ghauts or hill sides, open plains, stone-strewn land, slopes and undulating country, flat country with green pastures, low country

with great fertility, cultivated country with homesteads and cows—a list from which the good ones can be selected and the bad ones avoided (Y., 227–29 and 245). In addition to the surface features, reference is made to the different kinds of soils, such as sandy, clayey, rough and stony, etc., thus: "May Yagna give me clayey soils, stony soils, hilly soils on hills and mountain slopes, land yielding both cultivated crops and wild produce" (Y., 245).

Rain and Water Sources

As the greatest and all-important need for crops and animals and indeed for all life on this globe, rain in abundance is prayed for in numerous hymns, and this, in fact, may be said to be the main and fundamental object prayed for. While the supreme function of granting this prayer in full is reserved for Indra, the paramount deity of the Vedas, all the gods are extolled and supplicated for aid. It will be superfluous to quote many references, and the following may be taken as typical: "Send to us for our nourishment and prosperity the quick falling wonderful abundant water in the centre of the clouds, effecting of itself much good" (R.,I. 21. 3. 10). "Armed with my thunderbolt, I created all these pellucid waters flowing for the good of man" (R., I. 23. 1. 8). "Flood the land, cleave the clouds, grant us the power of the beneficent waters, set free the waters from their abode" (Y., 132. 6). "O, waters, become one with this rice, just as a maiden in season with her man" (Ath., 476. 29).

Prayers against too much rain.—The idea behind the popular saying that crop failures are brought about as much by too much as by too little rain, is reflected in the prayer against too much rain, contained in the following hymn: "Parjanya, may the high and low places be made

level; thou hast rained; now check well the rains" (R., V. 6. 11. 7, 10).

Irrigation and river water.—The abundance of flowing water as is afforded by numerous rivers for increasing the fertility of the land and as one of the prime requisites of agriculture is fully appreciated and prayers are offered for the grant of such rivers. Rivers obviously imply cultivation by irrigation, which is a form of cultivation connoting a great advance over ordinary rain-fed cultivation. Such irrigation from rivers also implies a knowledge of the construction of dams and laying out a canal irrigation system. Even if the dams should be only rough and primitive ones like a pile of boulders or even brushwood, reeds and wattle, enough merely for diverting a portion of the flood water into canals, considerable technical knowledge and skill should have existed. The existence of such knowledge opens up a vista, very interesting to speculate upon, of more than one skilled craft or industry, without which the construction of dams and canals would be impossible. Indeed, reference is made definitely to such craftsmen, thus: "Ribhus (dextrous-handed craftsmen), rendered the fields fertile; they led forth the rivers; plants spring upon the waste and water spread over the low places" (R., IV. 4. 1. 7). The reference is clearly to irrigation and the change brought about thereby.

We may even say that this is only to be expected, because riverine civilisations from the most ancient times, whether in China, Central Asia, Iran or Babylonia, the valley of the Euphrates, owed their prosperity to irrigated farming. As one writer says of the City-States of Babylonia, "The life of the land depended solely on irrigation and it was the ambition of good rulers of the City-States to cut out a new

canal and clean out the old ones" (*Reconstruction by Way of the Soil*, by G. T. Wrench, page 54).

The following are some of the references, bearing on the point: "May the seventh stream Saraswati, the mother of the Sindhu and those rivers that flow copious and fertilising, bestowing abundance of food and nourishing the people by their waters, come at once together" (R., VII. 3. 3. 6). "May the agriculturists produce plenty for us, like the floods that follow after the rains, through a thousand channels; and like a never-failing spring let our grains increase" (Ath., 95. 3, 4). "Indra cut up Ahi and set free the river from their obstruction" (R., III. 3. 7. 6). This episode is referred to in more than one place among the exploits of Indra for the good of his worshippers, and is understood by some as symbolising the melting of the snows on the mountains and the swelling of the rivers thereafter. It can be construed more appropriately as the defeat of attempted obstruction or diversion of rivers or streams by hostile tribes and the restoration of the flow along the normal course—a proceeding not uncommon among riparian inhabitants. "Grant us the water in torrents, cut the bonds around the waters and set them free; when the floods descend upon the earth, Parjanya darkens even the bright day" (Y., 132. 1, 2). "Just as the contents of the treasure-house are set free for the Yajman by liberal donors, even so, the rains have been set free from their abode in the heavens by Parjanya" (Y., 132. 3).

That reservoirs and channels drawn therefrom for purposes of irrigation, did exist can be inferred from the many references to this exploit of Indra. Thus: "I went to the wide auspicious Vipash, flowing together to a common receptacle" (R., III. 3. 4. 3). "Fertilising (the land) with our current, we are flowing to the receptacle,

which has been appointed by the deity (Indra)" (R., III. 3. 4. 4). "Indra dug our channels when he slew Ahi, the blocker up of rivers" (R., III. 3. 4. 6). "When he cut Ahi to pieces, and with his thunderbolt destroyed the surrounding (obstructors of rain) whence the waters proceed in the direction they desire" (R., III. 3. 4. 7).

Soil erosion by rivers and its control.—River meanderings and the destruction of the banks by erosion were dreaded events, quite as much as they are in modern days, thus: "Rivers, the corroders of their banks, like armies destructive of their foes" (R., IV. 2. 9. 7). The control of such erosion was known and embankments were evidently both substantial and beautiful, thus: "Maruts, come along the beautifully embanked rivers, with unobstructed progress" (R., I. 8. 3. 11).

Wells.—Among the sources of water other than rain and rivers are wells. These were used not only for supplying water for drinking and domestic purposes, but also for irrigation. Their importance and, especially, of those which had an abundant supply, was fully realised, thus: "The Maruts brought a well for Gotama" (R., I. 14. 1. 11). "As a thirsty ox or a thirsty man hastens to a well" (R., I. 19. 4. 2). "Our praises converge towards you, like herds towards a well" (R., X. 2. 9. 4). "Tie the ropes tight to the waterpots, let us draw water from this unfailing well. Set up the cattle troughs, bind the straps to it; let us pour out the water from the well which is not easily exhausted" (R., X. 9. 2. 5).

The wells referred to above were evidently well-built wells, with parapets, arrangements for baling water, probably for irrigation also, because tying up fixtures, leather straps, etc., are mentioned. That *mhote* buckets were also used is not improbable; the *mhote* buckets

of Northern India even to-day are much simpler than the South Indian *kapiles* and may have come down from Vedic times.

Mud wells.—There were also wells which were just holes in the ground, neither rivetted nor provided with parapets, something like what we should call *kutcha* wells in these days; these were a source of danger to unwary men and cattle, whether in the day or in the night. Prayers were offered for the safety of cattle, that they may not fall into such wells and hurt themselves, thus: "Let not, Pushan, our cattle perish, let them not be injured, let them not be hurt by falling into a well" (R., VI. 5. 5. 7).

Other water sources.—Reference is made to what practically amounts to a complete list of water sources of all kinds. Thus in Yajur, Anuvaka 227, are mentioned the following: Rivers, lakes, tanks, ponds, pools, stagnant water, wells, sea; *namaskar* (obeisance) being made to the gods or spirits dwelling in such abodes.

Fields and Lay-out

Land was laid out into fields.—The kind of farming was not pastoral exclusively by any means. It was arable farming, with land laid out into regular fields, ploughed and sown, and crops reaped and stored. Land was also properly measured and fields of definite sizes laid out, which implies at the same time individual ownership and the provision for a change of ownership by sale or division. Thus: "Wide fields, vast treasures, spacious pastures, has Indra bestowed on his friends" (R., III. 3. 2. 15).

Measuring rods of presumably standard lengths were used for measuring fields, thus: "Like a field measured by a rod" (R., I. 16. 5. 5).

Fields were fenced around, thus: "I erect a safe fence as a protection" (Y., 13. 3). "Like horses breaking through fences" (Y., 383. 9).

Fields abutted on roads.—The countryside was traversed by good roads, on to which fields abutted presumably. Only those who are aware of the drawbacks of agricultural land in our villages with fields scattered anyhow and under different owners, with no separate approach by road or even pathway, for the carting of manure or produce, except by the sufferance of the neighbour, and in any case impossible when there is a crop on the land, can realise what a great and much-needed facility is thus provided by farm roads.

Much importance was attached to good roads and the gift of such roads was often prayed for. Thus: "We worship thee, for pleasant fields, for good roads and for riches" (R., I. 15. 4. 2). "We solicit a spacious road for our servants, a spacious road for our cattle, a spacious road for our chariots" (R., VIII. 7. 9. 13).

It is interesting to note that roadside rests were provided for the benefit of those carrying burdens, which is a form of public or individual charity common in many villages even now. A conspicuous feature on many roads in Mysore for example, is the elaborate arrangement made for the rest of tired travellers, and especially those who may be carrying heavy loads on their heads, the thirsty and the heavy-laden in fact. Under the cool shade of an avenue tree, is erected a group of such fixtures which comprise (1) a shoulder-high platform of stone erected over a couple of tall stone slabs, on to which the man can transfer his load without assistance; (2) a rectangular overhead water cistern of stone which is cleaned out and filled with fresh drinking

water every morning. The cistern is provided with a small hole at the bottom closed by a wooden plug, which the thirsty traveller has only to pull out, drink his fill and then push back again to close the hole; and (3) a large stone bench to sit on, and rest. This is a form of old-fashioned charity in our villages even to this day, which, from what we see now, is evidently as old as the Vedas. The Vedic reference is as below: "As one carrying a load of bamboos on his head places it on a high load-easing platform and seeks a little relief" (Y., 354. 8).

Good fields and bad fields.—There was also the inevitable mixture of good fields and bad fields, making up the mosaic of the arable land just as in the present day. Thus we have: "Like a pleasant field given to a beggar" (R., X. 3. 4. 6). The implication evidently is that a field ought to be in the possession of one who can put it to its full and proper use. A surprisingly modern and almost socialistic concept!

Barren fields are referred to and compared to a bald head. Thus: "O, Indra, these three places do thou cause them to grow, my father's bald head, his barren field and my body. This field which is my father's and this my body and the head of my father do thou make them bear a crop" (R., VIII. 9. 11. 6. 5). Bald-headed humanity was evidently as common and as much commiserated then as they are at the present time, and here is the daughter adding the efficacy of her prayer to that of hair-restoring specifics which also were known and no doubt availed of. Thus: "To grow hair, Jamadagni has brought this herb; may it grow hair on your head thick and straight like reeds" (Ath., 310). It is interesting to relate that this prayer of the distressed damsel (Apala, the daughter of Atri) who was restored to

resplendent beauty by Indra (and let us hope the father was equally favoured and blessed with a good thatch of hair where none grew before) by the peculiar process of passing her through his chariot, the chariot wheel, a hole in the yoke of his chariot, is to this day enacted in the marriage ritual of the Brahmins; a yoke is placed over the head of the bride resting on a ring of *darbha* grass, to the accompaniment of the appropriate *mantras*, to signify or symbolise the restoring of the bride to resplendent beauty, cured of all maladies.

The Seasons

Due attention was paid to the seasons, suiting evidently crops to season, as skilled agriculturists alone can do. The days of the year fell into 94 divisions and the growth of crops noticed presumably through the different sections of the period. Many of the exploits of the deities, legends and stories, as well as the rituals and ceremonies in the Vedas are indeed claimed to be only symbolical references to natural phenomena, astronomical events, and the play of human feelings and faculties and we are warned aginst taking them all literally. It is only to be expected then that the succession of the seasons and their effect upon plant and animal life should have been known and the knowledge made use of. This minute division of time is indicated somewhat cryptically as is usual in these hymns, thus: "Vishnu (*i.e.*, Time) causes by his gyrations, 94 periodical revolutions" (R., I. 21. 16. 6). Wilson explains that these 94 divisions are: 1 year, 2 solstices, 5 seasons, 12 months, 24 *pakshas* or half months, 30 days, 8 watches and 12 zodiacal signs (*vide* his note to this particular hymn). Again, "May the grains ripen through the nights and days, and the *pakshas* each of fifteen days, and the month

of thirty days, and the year comprising the seasons in their regular order and bring happiness" (Y., 366). "The exhilarating effused juice, the fifteenfold Soma" (R., X. 2. 11. 2). It is explained that the Soma plant grew in the fifteen days of the bright half of the month and wilted or languished in the dark half.

The year was divided into the familiar six seasons of two months each, and their characteristics from the point of view of agriculture were evidently well understood. The advent of each season was hailed with pleasure and each was a source of enjoyment in its own way. Thus: "Vasanta is delightful and fit for enjoyment; Grishma is the abode of joy; Varsha, Saradrithu, Hemantharithu, and Shashi rithus are charming and give intense pleasure" (Samaveda, Kanda 63, hymn 2).

The solar and lunar years were distinguished and the intercalary month required to keep the latter in step with the former was also adopted. Thus: "He (Varuna) knows the twelve months and their productions, and that which is supplementarily engendered" (R., I. 6. 2. 7). This must be considered a remarkable advance in astronomical knowledge for those days and connotes no doubt a corresponding knowledge of adjusting agriculture and the many avocations of life to the peculiarities of the different parts of the year. Commenting on it, Wilson observes, "The passage is important, as indicating the concurrent use of the lunar and the solar years at this period, and the method of adjusting one to the other" (*vide* his note to this hymn).

The Rains Begin and Bring Unbounded Joy

The advent of the rainy season and the rains brought unbounded joy to the people, who duly celebrated it, not only prayerfully but also in genuine enjoyment. This

is rather noteworthy, because all over the world and to this day, it is the advent of the spring, when nature wakes up from her long sleep of winter and all creation bursts into new life, which is celebrated in joy and riotous merriment, sometimes degenerating into erotic excesses. The Vedic Rishis had evidently a better sense of values, and selected the rainy season for such a demonstration, for rain meant food and sustenance to men and animals, or as the *Bhagavat Gita* says, "all created beings are sustained by food and it is Parjanya, the rain-god, who produces this food". With one Rishi this appreciation takes the strange form of a panygeric on 'frogs' because frogs happen to be the harbingers and heralds of rain. Their croaking concert comes in for a most humorous description from him. Thus: "When the waters of the sky fall upon them (the troop of frogs) sleeping in the (exhausted) lake like a dry water-skin; then rises together the croaking of the frogs, like the bellowing of cows when joined by their calves" (R., VII. 6. 14. 2). "When the rainy season has arrived and Parjanya has sent the rain upon them, thirsty and longing (for its coming) then one frog meets another, croaking his congratulations as a child calls to its father with inarticulate ejaculations" (R., VII. 6. 14. 3). "One of these two congratulates the other, as they are both delighting in the forthcoming of rain; the speckled frog, leaping up repeatedly when moistened (by the shower) joins greetings with the green one" (*ibid.*, 4). "One frog has the bellowing of a cow, another the bleating of a goat; one of them is speckled, one is green, designated by a common appellation; they are various coloured and croaking, show themselves in numerous places" (*ibid.*, 6). "Like Brahmins at the Soma libations, at the *atiratra* sacrifice, you are now croaking around the replenished lake (throughout the

night) for on that day of the year, you frogs are everywhere about when it is the setting in of the rains" (*ibid.*, 7). "May the cow-toned, the speckled, the green frog (severally) grant us riches" (*ibid.*, 10). The Vedic Rishis evidently enjoyed nature frankly; they were moreover not sour-faced puritans of the type "who hated bull-baiting, not because it gave pain to the bull but because it gave pleasure to the spectators"; they had a sense of humour and were not averse to enjoying a joke even when it was at their expense (as in the hymn above). They were also keen observers of the nature and habits of the animals around them, were they frogs or cows or horses or the scores of other creatures which they met with in the fields and forests.

Ploughs and Ploughing

The rains having been propitious in response to the numerous prayers, the ploughing of the field begins. The first ploughing of the season was however inaugurated amidst much reverential ritual. Elaborate invocations and supplications were made to various deities and it is stated that these particular hymns were to be repeated silently in meditation, an oblation being made to Fire at the same time. The following are the concerned hymns, the first three being addressed to Kshetrapati:

1. "With the master of the field, our friend, we triumph; may he bestow upon us cattle, horses, nourishment, for by such gifts he makes us happy.

2. Lord of the field, bestow upon us sweet abundant water, as the milk cow yields milk, dropping like honey, bland as butter; may the lords of the water make us happy.

3. May the herbs of the field be sweet for us, may the heavens, the waters, the firmament, be kind to us;

may the lord of the field be gracious to us; let us, undeterred by foes, have recourse to him."

4. Addressed to Shuna: "May the oxen draw happy; the men labour happily; the plough furrow happily; may the traces bind happily; wield the goad happily."

5. Addressed to Shunashira: "Shuna and Shira be pleased by our praise; and consequently sprinkle the earth with the water which you have created in heaven."

6 and 7. Addressed to Sita: "Auspicious Sita, be present, we glorify thee; that thou mayest be propitious to us; that thou mayest yield us abundant fruit. May Indra take hold of Sita; may Pushan guide her; may she, well-stored with water, yield it as milk year after year."

8. Addressed to Shunashira: "May the ploughshares break up our land happily; may the plough go happily with the oxen; may Parjanya water the earth with sweet showers happily; grant, Shuna and Shira, prosperity to us" (R., IV. 5. 12. 1–8).

It may be noted that even to-day the first ploughing of the season in the villages of Mysore (and no doubt elsewhere also) is a very pretty ceremony called *Honneru*, "the golden plough", a phrase pregnant with meaning. On the auspicious day and hour fixed by the village astrologer, the gowda or headman of the village goes out to the field, holds the plough and ploughs a few furrows, all the villagers attending in a prayerful mood, and puja and prayers being offered at the same time. This is the signal for beginning the general ploughing, which commences thereafter.

The Vedic plough was an implement which was fashioned with an eye to beauty and with artistic taste and was evidently something of which the owner

could feel proud. The ploughs had ornamental handles; very much like what can be seen at the present time in the houses of many old agricultural families, where the plough handles, seed-drill handles and seed bowls, handles of sickles, many parts of the carts, cattle mangers and so on, are carved so as to resemble appropriate limbs of animals, such as the leg of the lion, the face of sheep, or bull, or man, or parrot, or just floral designs.

The plough handles might be ornamental but the business end had to be serviceable, thus: "Our auspicious ploughs with their ornamental handles, and their sharp-pointed shares, cleave the ground to the happiness of cows, sheep and well grown maidens."

Ploughmen ploughed round and round, plough furrows were to be close to each other, and of good depth; ploughmen worked in teams—all of which are features of good ploughing which will delight the heart of the agriculturist in any part of the world. Thus: "May the ploughmen plough round and round, happy with the prospect of heavy crops—may the rain god grant us plenty with milk and honey." "Fit up the ploughs, and yoke them close to each other." "May Indra press the plough deep into the soil; may the sharp-pointed share cleave the soil and push the ploughed earth on both sides of the furrows" (Y., 189. 13–20).

The plough used was evidently of the same type as the wooden plough being used to-day, in which the V-shaped plough bottom pushes the soil on both sides of the furrow!

The field is to be ploughed many times and the necessary tilth produced, thus: "As a husbandman ploughs the earth repeatedly for barley" (R., 1. 5. 6. 15).

Plough bullocks.—These were to be treated gently: they were not to be goaded and hurt, but were to be

coaxed by good words and even with bucolic music, thus: "Wield the goad happily (attract by a new song, the purifying showers) as a ploughman repeatedly drawing his furrows praises and addresses his oxen" (R., VIII. 3. 8. 19). All lashing, goading with sharp-pointed goads, vulgar abuses in racy vernacular as one often hears addressed to plough or cart bullocks while negotiating some stiff ground, have thus to be avoided —sentiments which will do credit to all lovers of cattle.

Plough bullocks have to be strong, thus: "O, bulls, who are strong enough to pull with the yoke on your shoulder" (Y., 22. 7). "May the plough bullocks, may the ploughman, may the plough ropes be all victorious, may the whip be lifted victoriously (bring the expected result in the shape of crops)" (Ath., 88. 6).

Were horses used for ploughing?—Evidently bullocks were the plough animals, as is seen from the references already quoted. There is however the following reference which points to the use of horses for ploughing: "Set up the cattle troughs, bind the straps to it, let us bale out water from the well which is not easily exhausted. Satisfy the horses, accomplish the good work of ploughing" (R., X. 9. 2. 3, 5, 7). It is rather difficult to believe that the kind of ploughs used in those days, which apparently were of the same type as the present-day ones, needed the use of horses, unless it be that a heavy plough such as is used for ploughing black cotton soils in the hot weather which requires the use of three or four pairs of bullocks, is the one referred to. It is not at all unlikely that such could be the case, because the horse was greatly in use in Vedic times, as riding horses, cart horses, chariot horses, war horses, etc., and was probably in use for ploughing also, if the kind of ploughing required

horse power. If so, then it must be said that agriculture must have been of a very high standard.

Other references to ploughing are as below:—"O, Indra, I ask your help in ploughing for the increase of grain" (Y., 16. 10). "May the lowlying lands so ploughed and rich with milk, and wet with honey and ghee come back to us much fertilised" (Y., 189. 20). "The ploughshare furrowing the field provides food for the ploughman" (R., X. 10. 5. 7).

Seeds and Sowing

The field having been ploughed and prepared by repeated ploughings, the sowing is begun, but it is important to see that the seedbed has been properly prepared, thus: "Causing the barley to be sown in fields properly prepared by the plough" (R., I. 17. 2. 21). Seeds must be of good quality (*i.e.*, with a high germinating capacity), thus: "May the seeds be viable; may the rains be plentiful; and may the grains ripen through the nights and days, the *pakshas* of fifteen days, and the month of thirty days and the year comprising the seasons in the regular order" (Y., 366). "Sow the seeds; may the earheads be many and heavy for the sickles to cut and pile in heaps; may these auspicious ploughs (used at sowing time to cover the seeds) bring us wealth in cows, sheep, chariots and well nourished and strong women" (Ath., 88. 1. 7).

Seeds were evidently sown in plough furrows or broadcast and covered over by a ploughing, thus: "Harness the ploughs, fit on the yokes, now that the womb of the earth is ready to sow the seeds therein; and our praise to Indra, may there be abundant food, may the grains fall ripe towards the sickle" (R., X. 9. 2. 3).

It is noteworthy incidentally to observe the strength of faith in divine help at every step and how every act of husbandry was preceded by a supplication to the Almighty.

Rotation of Crops

It is surmised that rotation of crops was well known and was practised at that time, although there are, as far as I have seen, no direct or indirect reference to it. There is however the following hymn: "As the growers of barley often cut the barley, separating it in due order" (R., X. 11. 3. 2) on which Webster makes the comment: "The literal meaning indicates a knowledge of a succession of crops, an important advance in agriculture".

Crops Cultivated

Barley and Wheat.—As may be expected from the foregoing, quite a variety of crops was grown. Barley is the grain crop mentioned frequently and in many contexts, such as at sowing, harvesting, winnowing and storing and prepared as food. It is quite probable that wheat (the kind called 'spelt wheat') was also intended by the term. Thus: "As a husbandman repeatedly ploughs the earth for barley" (R., I. 5. 6. 15). "Causing the barley to be sown in fields properly prepared by the plough" (R., I. 17. 2. 21). "As barley is harvested by heading, separating the earheads from the stalks" (Y., 109. 2; Y., 122. 1). "This barley grain heap will grow and the store increase". "O, barley grain, may you increase ever more; may you be inexhaustible like the sea" (Ath., 315. 152). "Winnowing it (speech) as men winnow barley with a sieve" (R., X. 6. 3. 2). "The assembled cattle feed upon the barley" (R., X. 2. 11. 8). "We have prepared the parched grain and curds for thee,

and the fried barley for thee, also cakes and butter" (R., III. 4. 14. 7). "Grains of parched barley steeped in ghee" (R., I. 4. 5. 2). "Vegetable cake of fried meal, do thou be substantial, wholesome and invigorating, and body, do thou grow fat, with boiled milk and boiled barley" (R., I. 24. 8. 8 and 9). "As a granary is filled with barley" (R., II. 2. 3. 11).

Rice.—Mention is made of rice only in the Atharvaveda. As Cowell says, barley and rice are the principal grains in the Atharvaveda; in the Rigveda it is only barley. Thus: "I seek barley and rice grain; do you eat barley and rice; you swallow the grains as a python swallows the sheep" (Ath., 717. 15. 7). "You eat the rice, then the barley, then the blackgram and then the gingelli" (Ath., 313. 2). "Prana and Apana are rice and barley; prana resides in barley and apana in rice" (Ath., 467. 13). This perhaps shows the importance of a mixture of grains rather than single ones, so that one may be the complement of the other, one supplying the deficiencies of the other. "May we escape poverty by means of cattle; escape hunger by means of barley" (R., X. 4. 2. 10). The implication probably is that while barley the grain crop is raised for food, cattle are raised for sale and the making of money, as well.

Other grains and pulses.—Besides barley and rice several other grains were also cultivated, in addition to various other crops. Thus: "Through Yagna, may I secure happiness, riches, love, affection,....diligence in ploughing....success against enemies, food, milk, truth, agriculture, rain, gold, wealth, *rice, barley, and other grains, blackgram* (*Phaseolus mungo*), *greengram* (*Phaseolus radiatus*), *wheat, tuver* (*Cajanus indicus*), *Bengal gram* (*Cicer arietinum*), *navane* (*Setaria italica*),

shamai (*Panicum miliare*), *sirumani rice, and orchard crops*" (Y., 244). This is perhaps the only context where mention is made of wheat. Barley was evidently by far the most important grain crop, although "spelt wheat" was probably included under that name. "O, Agni, who consumest flesh, the black goat is your share, lead is said to be your wealth, and ground blackgram said to be your offering" (Ath., 475. 53).

Gingelli.—This is the only oilseed mentioned, and both the black-seeded and white-seeded varieties were evidently grown, and the seed pressed for oil. Thus: "Taste the ghee and the oil of the gingelli" (Ath., 8. 2). "I offer you dried sugarcane, white gingelli, reeds and bamboos" (Ath., 475. 53 & 54).

Sugarcane.—This crop was also grown as is evident from the above verse. It was also perhaps crushed and gur or jaggery made, although there is no specific mention made of sugar or gur, honey being the article used for sweetening. In the above reference, the articles mentioned are said to be used as fuel by Indra. If so, the dried sugarcane was the refuse (or begasse) of the crushed sugarcane, which is even now used only for fuel mainly. This is only a surmise but the inference cannot be escaped, even though there is no specific mention. "I have tied you round with the sugarcane stems, in order to avoid dislike" (Ath., 34). The sugarcane referred to is probably the thin grass-like indigenous variety, which one can see now only as a curiosity among the numerous different varieties which come up when sugarcane seeds are sown, unless the meaning be metaphorical and 'sugarane' stands for love and affection, feelings sweet as sugarane.

Vegetables.—Many fruits, flowers, vegetables, roots and medicinal herbs were also cultivated, as may be seen

from the following: "O, plants, who yield flowers, fruits, edible roots, gladden him with your produce" (Y., 177. 12). "Rudra, nourished by the sanatory vegetables, which are bestowed by thee, may I live a hundred winters" (R., II. 4. 1. 2). "May the waters, crops, plants, and creepers favour us" (Y., 87. 4). "Give us the medicinal herbs suitable for cows, horses, men, sheep and goats" (Y., 112. 1).

Cucumber and bottle-gourd are specifically mentioned thus: "May I be liberated from death like the Urvaruka (cucumber) fruit from its stalk" (R., VI. 4. 5. 12). "He is like an empty bottle-gourd (devoid of substance or brains)" (Ath., 720. 1–4).

Grapes.—Grapes were probably cultivated, the methods of pruning understood, and the art of fermenting the juice into wine also known and practised. Thus: "Cut off the foe, like an old pruner cuts off the protruding branches of a creeper" (R., VIII. 5. 10. 6). "The potations of Soma contend in thy interior (for thine exhilaration) like the ebriety caused by wine" (R., VIII. 1.2. 12). According to De Cŏndĕlle, the cultivation of grapes can be traced back to four thousand years, and northwestern India has been a great centre of cultivation. Wilson translating "sura" as 'wine' says, "The preparation of fermented liquors was therefore familiar to the Hindus, and probably amongst them was wine, the north-west of the Panjab, no doubt their earliest site, being the country of the grape" (Wilson's note on this hymn).

Cotton not mentioned.—A crop very conspicuous by its absence is cotton. Cotton was evidently not grown or known, and cotton weaving and garments not in vogue. Otherwise it is highly improbable that a crop which furnishes one of the primary requirements of mankind, *viz.*, clothing and next only to food, could have been left

out, especially when such a variety of other matters, some of them very trivial, are referred to. As regards clothing, garments are mentioned and in one instance rather elaborately; as regards weaving, the art is mentioned, strands of thread, warp and woof are all mentioned, and if cotton were grown and woven, it would not have been omitted. The inference is that neither cotton nor cotton garments were known.

In a very recent article written by A. N. Gulati, M.Sc., Microscopist, Technological Laboratory, Bombay, in *Indian Farming* of March 1949, it is pointed out however that cotton as a textile fibre was known in the period *prior* to the Aryan migration into India. He says "According to Marshall (*Mohenjodaro and Indus Civilisation*) cotton and woollen clothes were used by the pre-Aryan inhabitants of the Indus Valley over 5,000 years ago. Gulati and Turner (*Journal of the Textile Institute*, Manchester) analysed a piece of cloth sticking to a silver vase excavated from Mohenjodaro and found it to be made of cotton similar to a coarse type of *arboreum* cottons known to-day. Mackay (*Indian Civilisation*, page 138) is of opinion that the numerous spindles and spindle whorls found at Mahenjodaro, although indicative of a keen interest of the people in spinning as a domestic occupation, were used almost assuredly to spin cotton, and the majority of them were too small and light to spin an elastic fibre like wool." It is extraordinary how and why the cultivation of cotton and the art of weaving cotton cloth could have become extinct during the intervening period of a 1000 years or so. Even the Rigveda refers to the Indus Valley as the land of wool which shows that at that time cotton had disappeared from its one-time home (*vide* page 1). There is, however, the possibility that the Vedas were

long anterior to the Mohenjodaro civilisation, but this is opposed to the present accepted ideas.

Here are some of the references to show that weaving was known: "May they guard the strands in the warp from breaking" (Y., 383. 4). "He is the warp and the woof" (Y., 398. 8). "The 34 strands of thread required for the Yagna have been woven; I tie up the ends of the threads which have broken in the weaving" (Y., 375. 1).

Rather an elaborate reference to garments, both stitched and unstitched, is contained in the hymns relating to the marriage ceremony in which the bride has to discard her pre-marital garments which become the perquisite of the officiating Brahmin; thus: "Put away the garment soiled by the body" (R., X. 7. 1. 29). "This garment is inflaming; it is pungent; it is like stale Soma; it is like poison. The Brahmin who knows Surya, verily desires the bridal garment" (R., X. 7. 1. 34). "Behold the forms of Surya, the *ashasana* (border cloth), the *vishasana* (head cloth), the *adhivikartana* (divided skirt); of these the Brahmin relieves her" (R., X. 7. 1. 35). What were these cloths made of, one wonders, wool or cotton? The bridal outfit (or trousseau, shall we call it ?) consists too of three different pieces, the border cloth probably highly ornamental with woven designs or embroidery, and the stitched or tailored garment which the translator calls 'divided skirt', all of which betoken unmistakably a high degree of development of the art of weaving and of making stitched garments. For further references, *vide* page 54.

Other vegetable fibres.—The mention of ropes for tying and no doubt for many other fixtures such as in the cart, manger, at the well and so on, and of nets for fishermen and hunters, surely implies the existence of other fibres, whether cultivated or wild. Two at least

among them are mentioned, *viz.*, (*a*) "the *Silama*—the fibre (*vide* p. 1) used for tying ploughs" (R., X. 6. 7. 8) which is probably *Abroma augusta* yielding a good cordage fibre and (*b*) the lotus, thus: "She breaks down the precipices of the mountains, like a digger for the lotus fibres" (R., VI. 5. 12. 2). Even to-day, these fibres are said to be carefully reeled and used for sacred purposes.

It is possible that linen was used also, as indeed is surmised by Julius Eggeling in his translation of the *Sathapatha Brahmana* (Sacred Books of the East Series, Vol. XXVI, p. 9), but as in the case of cotton there is no mention of this fibre crop.

Harvesting of Crops

Harvesting began with a prayer, in the same way as it is usual at present in many villages, where it is a regular festival in the local temple, the first sheaves being cut and brought as an offering to the deity amidst much reverential rejoicing and to the accompaniment of temple music.

The harvesting tool was the sickle, the humble implement which constitutes the sole method to this day. Thus: "I take the sickle also in my hand with a prayer to thee" (R., VIII. 8. 9. 10). "May the crop swell at my prayers; let the sickles cut down the heavy crop of grain" (R., V. 6. 12. 9, 10). "May there be abundant food, may the grain fall ripe towards the sickle" (R., X. 9. 2. 3).

Harvesting was both by cutting down the crop, at the level of the ground, and also by separating only the earheads or 'heading,' as is done to-day in the case of irrigated ragi, sometimes jowar, and even with wheat and barley in some places. Thus: "As barley is harvested by separating the earheads from the stalk" (Y., 122. 1). "Thou milkest the nutritious grain from the humid stalk" (R., II. 2. 2. 6).

Cutting down of crops to encourage tillering.—In Y., 2. 6 occurs the prayer "May you tiller a hundred-fold after my cutting". It may be inferred (1) that fodder grasses were grown from which many cuts are usually taken, more tillering taking place after each cutting; (2) that the practice of ratooning was known, *i.e.*, taking a second crop from the stubble growth of the first, without sowing or planting afresh; (3) that a plentiful aftermath of stubble growth from the harvested fields of rice or barley was sought after, for the grazing of cattle. It is also probable that the practice of coppicing tree growth as is practised to-day in the case of fuel trees for inducing the growth of many stems from the cut end was known. The inference cannot be considered far-fetched in the face of the specific mention.

PRUNING

The method of pruning trees is also mentioned, showing that probably fruit trees were carefully cultivated, with attention to proper annual pruning or that trees of all kinds were pruned as and when required, to remove dead or superfluous branches and to give the trees the required shape. Thus: "Cut off the foe, like an old pruner cuts off protruding branches of a creeper" (R., VIII 5. 10. 6). The use of the word 'old' signifies that pruning requires much experience or that perhaps gardening was in the hands of old men, as is the case even in these days.

STORAGE

Grain was cleaned well before storage.—Winnowing it (speech) as men winnow barley with a sieve" (R., X. 6. 3. 2). "As grain is cleaned by winnowing it in the wind" (Y., 354. 8). Grain was thus not only put through

a sieve but also winnowed in the wind, to free it from chaff, and light grains.

Grain was filled into granaries.—The year's grain after thus having been cleaned and heaped, and prayers uttered by way of thanksgiving, was filled into granaries. "May this barley heap grow and the store increase" (Y., 109. 2). Even to-day such a thanksgiving ceremony is usual in many villages, when the cleaned grain is heaped in the threshing floor, worshipped with prayers and then carted to the grain store in the house.

Pests and Diseases

Pests and diseases attacking crops on the field and the produce in storage.—Field pests and storehouse pests of crops were evidently as familiar and dreaded enemies of the farmer, then as now. Large and visible pests like beetles, bugs and caterpillars, and invisible enemies like fungi and bacteria attacked crops on the field; and in the granaries, rats and sparrows, moths and other enemies wrought much destruction. Prayers were offered for protection, and the remedies themselves probably consisted of such incantations, thus: "Worms, insect and other pests, seen and unseen, of many kinds and many names, male and female, leaders and followers, I destroy you root and branch" (Ath., 165). "O, Ashwins, destroy the rats (bandicoots) that burrow into our granaries, otherwise they may eat up all our barley; save our grain. Destroy the borers and the locusts likewise which damage the grain in the earheads and prevent them from ripening" (Ath., 223). "Grind down (destroy) the worms as a physician grinds his medicinal mixtures in a mortar. I destroy those worms which are visible to the eye and which are not visible, in the body, in the head, in the bloodvessels, and those which bore

and which are in the jungle, in the herbs, in the cows, in the waters and in my body" (Ath., 66).

In regard to these incantations and the efficacy thereof, I may relate a couple of facts from my experience which may be found interesting. As a boy I used to watch my grandmother who was credited with powers of curing by *mantrams*, uttering incantations over a patient or medicine or simply *vibhuti* (holy ashes) for application, and was curious to know what these *mantrams* were. I succeeded one day in persuading her to teach them to me. I found that they were merely threats addressed to the diseases to depart from the patient immediately, lest dire consequences befall them, such as the breaking of bones, cracking of skull, flaying of the skin, plucking out of the eyes, tearing limb from limb and such inquisition devilry. Now after the lapse of some sixty years as I read these above-quoted *mantrams* from the Atharva Veda, my surprise may be imagined.

Another incident relates to the successful control of an insect pest on a Government Farm, by means of incantations. A pest had broken out on the Farm (I omit the name of the place) and the poor manager was at his wit's end trying to control it; he had tried all the remedies which had been taught to him in the college, in vain. He finally called in a *mantravadi* as a last resort and to his amazement, the pest disappeared after this person had recited his *mantrams* over the crop. He duly recorded the fact in his report, which when published aroused much sceptical comment, not unmingled with pity for the poor manager's credulity.

How was the Produce Consumed ?

Grain was boiled whole, or was converted into meal and made into cakes, probably like *chappaties*, *paratahs*

and *poories* as one comes across in Upper India at the present day; the cakes were often dripping with ghee; grain was also parched, for eating as such or made into the puffed article as in the case of rice. It may be noted that the oblation of puffed rice which is handed to the bride by her brother at the marriage to be offered to the sacred fire and which continues to the present day, is a custom handed down from Vedic times. The pulses, oilseeds (gingelli) and grains should no doubt have afforded ample scope for the exercise of the culinary art in preparing a variety of dishes.

Vegetables of many kinds, including many eidble roots, formed part of the food. Butter, milk, curds, ghee and honey are all freely mentioned among the articles of food, both eaten by the people and offered as oblation to the gods. Thus: "Mamma throws the corn on the grinding stones" (R., IX. 7. 9. 3). "Vegetable cake of fried meal, do thou be substantial, wholesome and invigorating, and body, may thou grow fat, on boiled milk and boiled barley" (R., I. 24. 8. 9, 10). "May the mortar and pestle give strength" (Ath., 476. 14) meaning probably that grain has to be pounded in the mortar before it is taken up for cooking. "Grains of parched barley, steeped in ghee" (R., I. 4. 5. 2). "We have prepared the parched grain and curds for thee, and fried barley for thee, also cakes and butter" (R., III. 4. 14. 7). "Nourished by the sanatory vegetables which are bestowed by thee, may I live a hundred winters" (R., II. 4. 1. 2). "O, plants, who yield flowers, fruits, edible roots, to gladden him with your produce" (Y., 177. 12).

Was Flesh Food Eaten?

It is needless to say that the prayers and supplications of the Vedas are part of the ritual of sacrifice offered

as oblation to the various deities. Sacrifice is in fact deemed the special feature of Vedic worship; other sections of the people, who at their best were no less civilised and religious in their own way but did not adopt the custom of Vedic sacrifices, were abhorrent to the Vedic worshippers who in their prayers sought for their destruction. Thus: "Exterminate also, Varuna and Mitra, those who emulously contending disturb the rites which are agreeable and beneficial to you both; those divinities, those mortals, who are not diligent in adoration, who perform works not sacrifices, those who do not propitiate you" (R., VI. 6. 6. 9).

Besides vegetable foods such as grains, cakes, fruits, etc., and dairy products like milk, butter, ghee and curds, supplemented with honey, the juice of the Soma plant and the flesh meat of sheep, goats, cows, bulls, buffaloes and even the horse (as an extraordinary event) formed part of the sacrificial offerings. The gods were bidden to accept these oblations, to some of which they were supposed to be partial, and to indulge in immoderate fashion. Such acceptance and enjoyment could of course be only in a spiritual sense and the gods could no more have consumed them in a physical or material sense, than their images could in our present day temples or houses. Of course some were consumed by the holy fire, in fact Agni is represented as the carrier of the oblations to the deities, but only selected portions of the flesh were used up in this manner, and substantial quantities must have remained for the worshippers to partake of. Did the priests eat it ? If not, how was it disposed of, unless the whole of them was consumed by the fire. It is an astonishing fact that while the *suktas* abound in a wealth of detail on a large variety of subjects there is no specific mention (as far as I can

see) by way of an answer to this question. One is left under the circumstances only to surmise, and each can do so according to his predilections.

There is however one of the hymns concerned in the Ashvamedha sacrifice which runs as follows, from which it can be inferred that the flesh of the horse was eaten by the worshippers; thus: "Let their exertions be for our good who watch the cooking of the horse: who say, it is fragrant; therefore give us some; who solicit the flesh of the horse as alms" (R., I. 22. 6. 12). It must be added, however, that, according to the great commentators, Sayana and Mahidhara, it is the gods to whom it is meant to be given, and it is the gods who, impatient of the delay, exclaim thus. To the English translator (Wilson) however it "leaves no doubt that mortals were intended, who feed upon horseflesh when offered in sacrifice" (page 262, Vol. I of Wilson's translation, note to the hymn); so that, as I have pointed out above, the view to be taken becomes a matter of one's predilections, more or less. Vedic or rather post-Vedic injunctions themselves on the subject appear somewhat contradictory, thus: "The *Sathapatha Brahmana* prohibiting the eating of the flesh of the cow (III. 1. 2. 21) adds the interesting statement, Yagnavalkya said, 'I for one eat it provided it is tender'. The *Grihya sutras* permit the slaughter of a cow on the arrival of guests, especially at a wedding or a sacrifice; but the practice was given up in later times, when substitutes for the flesh of the cow became the rule in the entertainment of guests" (A. Jacobi in *Encyclopædia of Religion and Ethics*). The actual reference showing that the eating of the flesh of the cow or the ox is condemned outright in this Brahmana runs, thus: " Were one to eat the flesh of an ox or a cow, there would be as it were an eating of

everything, or as it were a going to destruction". III Kanda, I Adhyaya, 2 Brahmana, 21. *Sathapatha Brahmana*, translated by Julius Eggeling, Sacred Books of the East Series, Vol. XXVI, p. 11.

It may be said that one offers to an honoured guest what one prizes most and that the offerings to the gods were only those which the worshippers valued highly as food, and that they were therefore regular meat-eaters. Ritual and *mantras* as to how a guest or other person is to be honoured show that a cow was to be slaughtered if the guest so desired and after the offering to the gods is made the remainder was to be served to the guest (*vide* Tamil translation of *Mantra Prasna*, published by Kadalangudi Natesa Sastri, p. 185, also pp. 307–10; it is stated however that the practice is forbidden in the Kali Yuga, *i.e.*, the present age). The surprising fact is that there should be no specific reference to the practice.

On the other hand, there is the view that these Vedic sacrifices are only symbolical accounts and should not be understood by any means literally. According to this view, there is neither victim nor killing. Thus 'Ushas' the dawn, is the sacrificial horse, Surya its eye, the air its life, Agni its mouth, rain its soul, light its rear, the firmament its belly, the earth its hoofs, the four directions its flanks ...., the stars its bones, the months and half-months its joints .... the clouds its flesh, lightning its open mouth, etc. (*vide* Preface to *Yajur Veda*, Tamil translation by Ashriar M. R. Jambunathan, p. 12). This view is said to be supported by Upanishadic authority, and for all one knows may be quite correct. The detailed descriptions of the sacrifices, however, can hardly admit of any doubt that animals were sacrificed in the literal sense, sometimes a large

herd of 20 or more cows as in the Vajapeya Yagna, (a description of this yagna appears in the life of Sri Appayya Dikshitar, published in *Margabandhu*, Vol. 14, No. 9, pp. 22–24), the gruesome horror of which must have led to the disappearance of these rites from present-day Indian life, not to speak of the influence of the religions of mercy like Buddhism and Jainism.

The Status of Agriculture

High praise is bestowed upon agriculture, as the foundation of life, happiness and wealth and its pursuit as a profession is earnestly enjoined. Thus: "May your wealth be nourished by agriculture" (Y., 118. 1). "Play not with dice; pursue agriculture; delight in wealth so acquired; there, gambler, are cows, there is a wife (to look after)" (R., X. 3. 5. 13). "Like lords of the wealth of corn" (R., VI. 6. 4. 2). "Grant us a son the owner of cultivated lands, the possessor of thousands" (R., VI. 2. 5. 1). "Wide fields, vast treasures, spacious pastures, has Indra bestowed upon his friends" (R., III. 3. 2. 15).

The Status of the Agriculturist or Tiller of the Land

While the profession of agriculture and the possession of vast cultivated land were thus extolled and eagerly sought, the ordinary agriculturist, the man behind the plough, the man who is actually the tiller of the land is looked upon as a dull stupid individual, not fit company for the high brows and members of the learned classes. The profession is fit only for the unlearned, those devoid of wisdom. Thus: "They are neither Brahmins, nor offerers of libations; devoid of wisdom, attaining speech having sin-producing speech, becoming ploughmen, they

pursue agriculture" (R., X. 6. 3. 9). The attitude is strikingly modern! The ryot is the pivot of society when food has to be produced and there is dire need, but forgotten as soon as plenty prevails, in the same way as the common British soldier blooms into Mr. Thomas Atkins, of the thin red line of heroes when the war drums beat, but sinks down to poor 'Tommy this and Tommy that, Tommy, the drunken brute' in the piping times of peace. Even to-day, many a parent considers only his dullest son as a fit student for an agricultural school, while the good ones go into the Medical, Engineering or Law College—a course of action which seems to have Vedic sanction! Even in the villages the agricultural labourer is considered only one step higher than the bullocks behind which he walks, the difference in his favour being that he can speak while his four-footed charges could not.

THE FLORA OF VEDIC TIMES

We have already referred to the agricultural crops which were known and cultivated in those days, as far as they can be made out from these hymns. We may appropriately close this section with a mention of the other flora referred to therein. These are the following:

1. *The Soma plant.*—This easily takes the pride of place. It is identified by some as *Sarcostemma acidum* and by others as *Asclepias acida.* In view of its special importance, we deal with it separately, (*vide* page 36).

2. *Madhu vanaspati.*—The Liquorice root, according to M. Bloomfield (*vide* his *Atharva Veda*, page 99. Sacred Books of the East Series, Vol. XLII). The reference is as below: " O, Madhu vanaspati, which originates from honey, we dig you out with honey, make us sweet, born as you are from honey" (Ath. 34–1).

3. *Vibhitika* (*Terminalia bellerica*).—The seeds of this tree were used as dice.

4. *Khayar* (*Mimosa catechu*).—The wood of this tree was made use of for the bolt of the axle of carts (R., III. 4. 15. 19).

5. *Sishu* (*Dalbergia sissu*).—The wood of this tree was used for the floor of carts (*ibid.*).

6. *Shami tree* (*Acacia suma*).—One of the pair of fire sticks, being the upper and harder piece, which fitted into a hole in a lower block and was twirled like a carpenter's brace, in order to produce fire by friction.

7. *Aswatha* (*Ficus religiosa*).—The lower softer block, which lies flat on the ground. The two together form the Arani or fire-producing apparatus.

The upper piece is somewhat cylindrical and almost like the Indian present-day carpenter's brace; the lower is a flat rectangular block about five inches wide, 3 or 4 inches thick, and a foot long. A rope is wound round the upper rod, which is held pressed down in the hole in the lower block, and the rope is pulled now one way, now another, while appropriate hymns are chanted at the same time. In a few moments, smoke emerges followed very soon by sparks, which are transferred to wood shavings and nursed into a good fire. As a boy, I have watched this interesting process in the house of a relative who was a *dikshitar* and regularly performed the Agnihotra.

8. *Salmali tree* (?)—This contained a poison, and is referred to thus: "May Agni counteract against snake poison, poison generated in the manifold knots of trees and the like, the poison that is in the Salmali tree, in rivers, or which is generated from plants" (R., VII. 3. 17. 3). The tree is probably *Hippamone mancella*, the

poison from which is said to be used for tipping arrows by African natives.

9. *Reeds and sedges*, for weaving mats (the mat sedge *Cyperus pangorei*, Rottb. perhaps) referred to in: "Just as women split reeds or sedges for the weaving of mats" (Ath., A. 311. 5).

10. *Other grasses*.—Several kinds of grasses are distinguished and named, thus Shara, Kushara, Dharbha, Shairya, Verana—all of which are said to harbour snakes and other poisonous reptiles (R., I. 24. 12. 3).

11. *The Lotus*, which is mentioned as a source of fibre, thus: "She descends down the precipice like a digger for the lotus fibres" (R., VI. 5. 12. 2).

The Atharva Veda contains the names of many medicinal herbs, used as specifics for various ailments, with appropriate *mantrams*. It is not possible to make out what exactly these are and give their modern or scientific names. The following are some among them:

12. *Syami*—which restores a disfigured person to normal appearance (Ath., A. 24. 4).

13. *Sirakthian*.—Specific used perhaps as a fungicide, "O, Vanaspathi, which destroys the disease causing light coloured or white stems in barley, gingelli and gingelli stems, destroy this disease" (Ath., 43).

14. *Prusiniparni*.—For use against impoverished blood, weakening, death of fœtus or abortion (Ath., 60. 1).

15. *Rohini*.—Used for setting broken bones (Ath., 114. 1).

16. *Apamarka*.—Used against hunger, thirst and loss of vigor (Ath., 119. 7).

17. *Arundhati*.—Used for increasing the milk flow of cows (Ath., 232. 1).

18. *Vishanagai*.—Used to cure *vadha* diseases (Ath., 217. 3).

19. *Paithvam.*—Used against snake bites (Ath., 457. 5).

20. *Ashwati*
21. *Somavati*
22. *Udojasi*
"All these plants I praise for the purpose of overcoming this disease" (R., X. 8. 7. 7).

23. *Palasa* (*Butea frondosa*).—(R., X. 8. 7. 5).

24. *Vrishyam or Veeryam.*—Medicine for increasing manliness or virility (Ath., 106).

25. *Apaskambam and Shrishti.*—An antidote against poisons of all kinds (Ath., 108).

26. *Varanavati.*—Also a similar antidote (Ath., 107).

27. *Uthanaparna.*—A medicine or love potion, used by the wife to win the undivided love of her husband, free from rivals (Ath., 89).

28. *Janghidam.*—A kind of panacea against poisons, aches, coughs, and all kinds of fevers (Ath., 550).

29. *Authumbaramani.*—For promoting nourishment. vigorous growth and strength (Ath., 447).

Numerous others of a similar nature are also mentioned, which it would be of the highest value, to identify and study.

Paucity of Crops Mentioned

It is rather noteworthy that the names of crops mentioned should be very few in number, that no reference should have been made to many other field crops, flowering and fruit trees and trees of economic or ornamental value. There are quite a number of crops which according to De Candolle (*Origin of Cultivated Plants*) are quite 4,000-year old, and which can be grown in Northern India, such as the grape, mango, peach, pomegranate and others; and they do not find any mention at all. It cannot be that they were not grown, and any inference made on negative evidence can be of

little value besides being risky. However the lack of evidence has to be reckoned with.

THE SOMA PLANT AND SOMA JUICE

The Soma plant, the soma juice and the soma sacrifice form an important and special feature of the life of the Vedic priests and the most wonderful virtues are attributed to this sacrifice, including the gift of immortality. A brief reference may therefore be made to it separately.

The soma plant is a wild and not a cultivated plant; it is said to grow in the stony poor soils amidst rocks and crevices on boulder strewn hills. It is a creeper—"the lord of creeping plants" (R., IX. 7. 11. 2). It is said that it continues "to grow in the bright half of the month and to wilt or cease to grow in the dark half of the month—the fifteenfold Soma" (R., X. 2. 11. 2). It is to be brought to the sacrificial hall, often in a cart load; the creepers are to be bruised and crushed between two stones and squeezed between a pair of boards or planks. The juice is to be strained through a piece of woollen cloth or through a wad of wool, into a large wooden trough or vessel—the *dronakalasa*. The juice is also "received in crooked pitchers" (R., IX. 7. 3. 13). "It is said to be green-tinted, yellow-hued and a tawny coloured bright juice" (R., IX. 2. 1. 1 and 2. 9. 2). "The juice is to be offered *fresh*" (R., VI. 3. 20. 2). "Stale juice is like poison and not fit to be taken" (R., X. 7. 1. 34). The juice is sometimes mixed with milk, barley, curds and even honey: "the Soma juices are mixed with sweet honey of the bee" (R., VIII. 1. 4. 8). It is offered to the gods and also partaken of by the worshippers. "It is said to exhilarate, like the ebriety of wine" (R., VIII. 1. 2. 12).

This property of exhilarating is evidently not due to any alcoholic fermentation, as may be supposed, because the juice is to be offered fresh. In fact, if kept, it became unfit for drinking. Even the fresh juice was not a palatable drink; it was nauseating and caused vomiting with some people. Such worshippers were to undergo a purificatory ceremony, called Sautramani (*vide By Indra's Aid*, by Frank R. Sell, p. 159). The gods were inordinately fond of it and the effect stimulated and enabled them to perform exploits of prodigious strength and valour. Thus: "This Soma, the exhilarating draught of which when fresh effused (at dawn) or at noon or at the last (or evening worship) thou cherishest, is poured out for thee, Indra; drink" (R., VI. 3. 20. 2). "With thy fellow topers (the Maruts) fill with Soma juice thy vast belly, capacious as a lake" (R., VIII. 1. 1. 23). "That adorable and powerful Indra, partaking of the Soma juice mixed with barley, offered at the Trikarudraka rites, has drunk with Vishnu, as much as he wanted; the draught has excited that great and mighty Indra to perform great deeds. Thereupon, resplendant, he has overcome Krivi in conflict by prowess" (R., II. 2. 11. 1 and 2). "The worshipper himself who partook of the drink became immortal and ascended to heaven" (R., VIII. 6. 6. 3).

To what particular ingredient in the composition of the juice was this wonderfully exhilarating effect due? It is an interesting question and well worth investigation. One writer says, "the expressed juice produces astringent, narcotic and intoxicating effect". The plant itself is variously identified as *Sarcostemma acida* (*viminele ?*) and as *Asclepias acida* (and in the Tamil language said to be known as Attukodi—lit. the sheep creeper and in Kannada as Somalata). If the fresh (not fermented) juice had this effect, was it somewhat like ganja, opium

or the drug cocaine—(or its leaves) all of which are vegetable products, narcotic but not alcoholic ?

Nevertheless, it is doubtful if we can altogether reject the idea that the Soma juice as drunk was a *fermented* liquor, because in one hymn it is referred to as a fermented drink. Thus: "Indra and Vishnu, feeders upon clarified butter, drinkers of the *fermented* Soma, ... bestow upon us wealth" (R., VI. 6. 8. 6). Perhaps there was some way of making it alcoholic without allowing it to become stale.

The juice of the Soma plant can, as a matter of fact, be fermented and made into an alcoholic drink, like any other intoxicating drink. The German Vedic scholar Albert Hillebrandt has described several methods by which the juice can be so fermented.

It is most interesting to note that strangely enough this same scholar is of the view that the Soma of the Vedas was no plant at all, but signifies the moon. In his *Vedische Mythologie*, this view is stated to be developed with much erudite ingenuity and that everything stated in connection with the Soma in the Vedas is explained convincingly on this theory, somewhat in the same esoteric manner in which the cow and horse sacrifices are explained (as mentioned on p. 30). On this esoteric interpretation, then, there was neither animal sacrifice in the literal physical sense nor any offering (or partaking) of any intoxicating drink. (*vide* Article on "Soma" by E. W. Hopkins in the *Encyclopædia of Religion and Ethics*).

The Vedic Fauna

The paucity of the flora mentioned is in marked contrast with the fauna of the times, of which a much larger number find mention. Thus: The black antelope, the bull, white antelope, monkey, wild pigeon, crocodile,

elephant, are mentioned in Y., 263. 1. The owl, cat, wild goat, mongoose, crane, fish, sea gulls, swans, woodpecker, python, rats, lizard, snakes, spotted deer, crab, eagle, turkey, jackal, doves, hare, cock, chameleon, dog, ass, porcupine, kite, wolf, lion, tiger, rhinoceros, rams, horse are mentioned in Y., 263-276.

Camels are referred to thus: "I have received 60,000 horses and tens of thousands, a score of hundred of camels, a thousand mares ...... These are the gifts of wealthy Prithushravas, the son of Kanita."

Frogs of many kinds are mentioned (as in the Frog hymn, *vide* p. 11), while cows, sheep and goats are referred to in numerous places. Buffaloes are also mentioned, but whether it was the important dairy animal that it is to-day, is not clear, there being no specific references to the milk, butter or ghee from the buffalo. Buffaloes are referred to thus: "You fall upon them like two buffaloes plunging into a pool" (R., VIII. 5. 5. 7).

Neither fauna nor flora Arctic.—Readers could not fail to notice that neither the fauna nor the flora which thus find mention in the Vedas can be called Arctic in their nature. They all belong to the tropical or temperate climates and as such, cannot lend any support to the theory of an Arctic home for the Vedic Aryans, propounded by the learned savant, the late Lokamanya B. G. Tilak. It must however be pointed out that he has in a way anticipated this aspect of the matter and states, "Before the advent of this period (Glacial and Interglacial) a luxuriant forest vegetation which can only grow and exist at present in the tropical or temperate climate flourished in the high latitude of Spitzberegen, showing that a warm climate prevailed in the Arctic regions in those days (*vide* page 22 of his *Arctic Home in the Vedas*).

The Cow in Vedic India

The cow occupies a very prominent place in the life of the people in Vedic times. Among the innumerable boons the Vedic priests prayed for, the cow may be deemed one of the most important. The milk, butter, ghee and curds were not only highly esteemed foods but they were in addition some of the main offerings to the gods. Cows supplied the other needs of agriculture and of life in general, furnishing the plough bullocks, the pack bullocks and cart bullocks. Their leather provided many articles in general use or required for special purposes, such as garments, cuirasses, sandals, straps and thongs, whips, bellows, bottles and large receptacles, etc. They were kept in herds and probably no man or homestead was so poor as not to own a few. Wealth consisted as much in the number of cows owned as in the number and size of full granaries. Herds were common objects of cattle raids and pilfering and expeditions both to raid and to rescue stolen cattle were common features in their life and supplications for aid and victory and the praise of successful exploits are the subject of numerous hymns. Cows were carefully guarded inside walled enclosures, watch dogs were kept, both to warn the inmates and to attack raiders. Cows of outstanding merit tempted covetous individuals or tribes, and even sages succumbed to the temptation; as witness the famous episode of Visvamitra stealing the 'wonder' cow of Vasishta. The milking of the cows, the making of curds, of butter and ghee were domestic duties of every-day importance; besides being offered to the gods, they comprised the daily food, both by themselves and put up in many forms in mixture with other foods. Ghee was required in large quantities both for the sacred fire in the house and in the sacrificial halls and this was probably

its main use. Cows were tended with great care, much store was set by green grass and grazing, for which vast pastures were prayed for; cows were also fed on grains, as concentrated feed; ample supplies of pure water were secured for them either from clear streams and pools, or if necessary, by lifting from wells. Cows were treated against injuries and diseases and many herbal and other specifics were known. Barren cows and cows susceptible to abortion were dreaded and avoided and points which distinguished good cows from bad ones were known.

The cow was the symbol of wealth and prosperity as milk, butter and ghee were the symbols of fertility and abundance. The lore of the cow forms a frequent feature in the imagery of the hymns and similes and illustrations referring to their nature and ways, abound. Gifts of charity, reward or religious merit, were made in the shape of cows, whose number varied with the wealth or status of the donor and of their disposition, liberal or otherwise. Lavish praises were bestowed upon liberal donors, while wealthy but miserly traders and others were commended to the wrath of the gods. Some of the hymns illustrative of the general features mentioned above may now be given:

"Wide fields, vast treasures and spacious pastures has Indra bestowed upon his friends" (R., III. 3. 2. 15). "We seek to bring down from thee (Indra) thousands and hundreds of cattle. May riches come to us from thee" (R., IV. 3. 11. 18). "May we escape poverty by means of cattle" (R., X. 4. 2. 10). "Grant to us Indra wealth of barley and cattle" (R., X. 3. 13. 7). "O, Agni, may I have milking cows in thousands and tens of thousands" (Y., 219. 15). "Shedder of rain, set open these clouds, set open the cow pastures, send us liberal kine liberally" (R., I. 3. 3. 7, 8). "He places the devout

man in a pasturage stocked with cattle" (R., V. 3. 2. 5). "Do you, cows, give us nourishment, restore the emaciated unlovely body to health and beauty; do you whose lowing is auspicious make my dwelling prosperous" (Ath., 123. 6). "Direct us to food associated with kine" (R., I. 17. 5. 9). "The liberal donation of thousands of cattle has been given to me" (R., VI. 4. 3. 22). "Givers of horses, cows and garments" (R., V. 3. 10. 8). "Lord of wealth (Indra) visit us as of old to give us cows, horses and chariots" (R., VIII. 6. 4. 10). "Let not the cows be lost; let no thief carry them away; let no hostile weapon fall upon them; may the master of cattle be long possessed of those with which he sacrifices and presents to the gods" (R., VI. 3. 5. 3).

The sixth Anuvaka of the eighth Mandala of Rig Veda relates wholly to the liberal gifts in cows, mares, camels and horses, one of which is characteristic, *viz.*, "I have received sixty thousand horses, and tens of thousands—a score of hundreds of camels, a thousand brown mares, and ten times ten thousand cows with red patches" (R., VIII. 6. 4. 22).

Cows which can give abundant milk and unfailingly and which can be milked with great ease are prayed for, thus: "Cows milking with ease and yielding abundant milk and ghee" (Y., 220. 10). "These white kine giving milk like wells" (R., VIII. 7. 10. 3). "Grant us cows which will be yielding unfailingly every day" (Y., 374. 1). "I invoke the milk cow that is easily milked, that the handy milker may milk her" (R., I. 22. 8. 26). The quality of some cows which let down their milk merely on the sight of their calf has been well observed and referred to thus: "As a cow having a copious stream of milk yields it coming into the presence of the calf" (R., IX. 4. 2. 1). On the contrary cows which are

troublesome to milk and which need control at milking time, probably by the well-known method of shackling their hind legs with a rope as is done at present, have also been taken note of, thus: "Control your friend like a cow for milking" (R., X. 3. 13. 2). The barren cow and the cow prone to abort are dreaded and avoided, and the restoration of barren cows to fecundity and lactation greatly appreciated thus: "You filled the milk-less barren and emaciated cows of Shayu with milk" (R., I. 17. 2. 20). "You, Ashwins, renovated for Shayu the barren cow" (R., X. 3. 10. 13). Reference is evidently to some medicinal treatment by which barrenness has been cured, for the Ashwins are said to be great physicians (*vide* p. 61).

The outward characteristics in which cows may differ from one another were closely observed, and each one is said to be agreeable to a particular deity. The kinds described are too many to be listed with advantage, a few however may be given as examples. Whether these outward differences were deemed to be related to any differences in the performance or other quality of the animals, is an interesting speculation. Among the kinds mentioned are, cows with many different colours, entire, patchy, piebald or brindled, with colours on one side only, colour on the face, on the ears, or on the tips of ears only, spotted, silky skinned, coarse skinned, with long tufted tail or stumpy one, horned and hornless, with white patches on legs, feet, forehead or along the back and so on (Y., 279–91).

Cows should have a compact body and a capacious udder, thus: "May the milk kine be possessed of well-filled udders" (R., I. 21. 13. 6). "Well-nourished compact bodied cows" (R., II. 3. 10. 3).

Milk.—Milk is the chief nourisher of man and milk and milk products are prayed for in numerous hymns. "Saruma discovered the abundant milk of kine, with which man the progeny of Manu is still nourished" (R., I. 12. 8. 8). "May our riches in ghee and curds increase" (Y., 147. 1). The churning of the curds was done with the churning rod and the rope, as it is done to this day, thus: "Binding the churning staff with a cord, like reins to restrain a horse" (R., I. 6. 5. 4). Milk in its progress from the initial bodily secretion as the food of the embryo to the form of ghee at the end is traced and mentioned thus: "He is the seed (of the calf), the embryo, the navel cord, and caul, the first milk, the colostrum, the fresh milk, the curdled milk and ghee" (Y., 157. 4).

Butter and ghee.—Butter and ghee make the richest viands thus: "Give us food of many kinds, dripping with butter" (R., VIII. 2. 3. 15). "We have prepared the parched grain and curds for thee, and fried barley for thee, also cakes and butter" (R., III. 4. 14. 6, 7).

Milk, butter and ghee were the symbols of plenty and fertility. "The land is wetted with ghee" (Y., 142. 20). "May the land so ploughed and rich with milk, strength and wet with honey and ghee come back to us" (Y., 189. 20). "May the rain god grant us plenty with milk and honey" (*ibid.*). Large quantities of ghee were used up in the sacrificial fire, thus: "these streams of ghee descend upon the fire, like deer fleeing from a hunter" (R., IV. 5. 13. 6). "The streams of ghee incline to Agni, as devoted wives to a husband" (R., IV. 5. 13. 8). "The streams of ghee fall copious and rapid as the waters of a river" (R., IV. 5. 13. 7).

Cows were fed on grains in addition to the grass on pastures, thus: "The assembled cattle feed upon

barley" (R., X. 2. 11. 8). "May you cows have many calves, grazing upon good pastures and drinking pure water at accessible pools" (R., VI. 3. 5. 7). Cows were also watered at wells, thus: "Set up the cattle troughs, bind the straps to it, let us bale out the water from the well which is not easily exhausted" (R., X. 9. 2. 5).

Similes from the ways of the cow are numerous and the following is typical: "Flowing waters rush to the ocean, like cows to their calves" (R., I. 7. 2. 12). "As a cow grazing in a meadow leads her calf out of danger" (R., II. 2. 6. 8).

These numerous and varied references to the many aspects of the importance of cows and milk and milk products make it abundantly clear that the breeding of the cow as a milk animal must have received great attention and reached a high state of perfection. 'Wonder cows' were probably not mere myths or poetic exaggerations but were real.

The cattle thief and the watch dog.—Cattle were protected behind walled enclosures and watch dogs stationed to guard them. Thieves got in nevertheless, for the dogs could be silenced by appropriate incantations, and cattle then stolen, thus: "Like a cattle thief getting over all obstruction comes in" (Y., 190. 11). Watch dogs and inmates were lulled to sleep by the *mantram*: "May the mother sleep, let the father sleep, let the dog sleep, let the son-in-law sleep, let the kindred sleep, let the people stationed around sleep ......" (R., VII. 3. 22. 5).

Cows met with accidents and were also open to attacks by wild beasts; prayers were offered for their protection, thus: "Let not, Pushan, our cattle perish, let them not be injured; let them not be hurt by falling into a well" (R., VI. 5. 5. 7). "May no thief be your

master; no beast of prey assail you, may the fatal weapon of Rudra avoid you" (R., VI. 3. 5. 7).

Cows were also treated against diseases and much herb lore of this kind must have existed, as references are many, thus: "Give us medicinal herbs, suitable for cows, horses, men, goats and sheep" (Y., 112. 7). Medicinal herbs to which animals suffering from particular ailments naturally and instinctively resorted and ate, were carefully observed and noted, and were then adopted as successful remedies for such ailments. The habits of the boar, mongoose, *garuda*, snake, swan, various birds, cows and sheep, in this connection, were studied and made use of by physicians (Ath., 440).

Cattle raids.—Cattle were raided and carried off by enemies and expeditions for recovering them were undertaken with Indra's aid, thus: "Recover thou our cattle, Indra; bring them back; the drum sounds repeatedly as a signal; our leaders mounted on their steeds, assemble; may our warriors be victorious" (R., VI. 4. 4. 31). It is interesting to recall that cattle raids and organised thefts and counter-raids appear to have been rather a common feature of village life even in South India in the olden days. In the Mysore State, for example, the countryside is studded with what are called *Veerakals* (or hero or warrior stones) which are memorials in stone raised to commemorate a departed warrior killed in such forays. These stones picture in three or four sculptured panels in semi-relief, the hero's fight, his being carried to heaven and his sitting as a humble devotee at the feet of God Mahadeva, this the topmost panel being further embellished with figures of the sun and moon to denote that the warrior's fame will last for ever. Occasionally another memorial stone called a *Mastikal* or *Mahasatikal* may also be found erected not far away, in commemo-

ration of the self-immolation of the chaste wife of the hero.

The Horse

The horse as the servant of man figures very much in the Vedas almost as much as the cow. Pack horses, riding horses, chariot horses, war horses, race horses and even ploughing horses, all find frequent mention not to speak of the sacrificial horse which finds a rare mention. Descriptions are always very apt and often beautiful, showing a very keen appreciation of its importance, a great love for the animal, good judgment of its points, and close observation of its nature and even its anatomy. The gods go about mounted on fleet steeds, or drive in chariots drawn by majestic horses; horsemen or cavalry of some kind forms an adjunct to the chariot force in warfare, expeditions and forays are carried out with men mounted on horseback, messengers and travellers use the horse both for riding and for drawing carts and waggons, horse racing was a great pastime and race courses are also mentioned. Horses and mares figure among the gifts made to the priests, generally along with chariots, by kings and other wealthy donors. Trappings of many kinds, some highly ornamental and rich in the case of those belonging to the wealthy, were in use; spurs and heel goads were used by riders; and traces, saddles, reins, bridles, heel ropes, halters are all specifically mentioned. The horse was also sacrificed perhaps as a rare and extraordinary event and offered to the gods.

The following are a few among the numerous references: "Satisfy the horses, accomplish the good work of ploughing" (R., X. 9. 2. 7). "Thou hast the wings of the falcon and the limbs of the deer (said of the horse)" (R., I. 22. 7. 1). "May your equally spirited steeds bear

you hither" (R., VI. 6. 8. 4). "Like horses breaking through fences" (Y., 383. 9). "Recover thou our cattle, Indra; bring them back; the drum sounds repeatedly as a signal; our leaders assemble mounted on their steeds; may our warriors be victorious" (R., VI. 4. 4. 31). "Whip with which the skilled warriors lash their thighs and scourge their flanks, urge the horses in battle" (R., VI. 6. 14. 13). "Ashwins, you stir up the sacrifice with your whip, that is wet with the foam of your horses and lashing loudly" (R., I. 5. 5. 3). "Rush like drivers of their cars to the goal (in a race)" (R., III. 3. 7. 6). "We soothe thy mind by praises for our good, as a charioteer his weary steed" (R., I. 6. 2. 3). "I have received ten horses, ten purses, clothes, and ample food; and ten lumps of gold; thou hast given ten chariots, with their horses and one hundred cows to the priests" (R., VI. 4. 4. 23, 24). "We have received a well-going chariot of silver, yoked with a pair of horses" (R., VI. 4. 5. 22). "I have surrounded their places like a race course for horses" (Ath., 49. 6). "Like a horse neighing when approaching a mare" (R., II. 4. 11. 2). "They have harnessed their horses fleet as the wind" (R., V. 5. 2. 7). "Where are your horses? Where are your reins? Where are you going? The saddle is on the back of the steeds, the bridle in their nostrils" (R., V. 5. 5. 2). "The goad is applied to their flanks, the drivers force them to spread their thighs apart like women in bringing forth children" (*ibid.*). The Aswamedha or horse sacrifice is described in the hymns in R., I. 22. 6, 7 in all its gruesome details and not without a pathetic element.

As in the case of cows, much attention should have been bestowed upon the breeding of horses and more than one type evolved, each suited to one or other of the several uses to which horses were put. It is possible of

course that horses were imported from Central and South-West Asia, as part of a regular import trade across the mountains and that they were not bred locally. Horses, as we have seen, were however being used so largely and for such a number of purposes and were presented by kings in such large numbers that it is more reasonable to presume that they were local bred stock and not purchased from outside.

SECTION II

URBAN LIFE AND ALLIED ARTS AND CRAFTS

VILLAGES, TOWNS AND CITIES

A FAIRLY high state of civilisation must have prevailed in these times, as is evidenced by the fact that forts, fortresses, walled towns and cities with many gates, are referred to. Obviously these connote the existence of many occupations and trades and skilled crafts. It is sometimes held that the Vedic Aryans lived in these early days only in small settlements close to rivers and that they kept shifting from one place to another, when the rivers overflowed or altered their course, and even otherwise in order to secure "fresh fields and pastures new". The majority did probably, live in villages then as they do now in India. The definite reference to the existence of well-established towns or cities cannot however be ignored. The new discovery of the buried cities of Mohenjadaro and Harappa antiquities also provides unmistakable evidence of the existence of such cities. Whether these belonged to the ancient inhabitants into which the Aryans moved after driving out the former or, as is more probable, merged with the local population though in the role of conquerors, or again whether the Aryans themselves built them, or that they were of both categories, are not matters of much importance, as compared with the fact that they did exist.

Villages are referred to thus:—

"We offer these praises to the mighty Rudra in order that all beings in this village may be well nourished and

exempt from disease" (R., I. 16. 9. 1). "Resplendent Agni, thou art the protector of people in villages" (R., I. 9. 1. 10).

The following are some of the references to towns and cities:—

"Indra has overturned a hundred stone-built cities" (R., IV. 3. 9. 20). "Indra, you are the blaster of fortresses" (Y., 386. 38). "Indra demolished the ancient cities of Ashna" (R., II. 2. 9. 5). "Invincible, destroying the phallus-worshippers, he won by his prowess whatever wealth (was concealed in the city) with the hundred gates" (R., X. 8. 9. 3). "Thou hast destroyed the impregnable cities of the Dasyu Shambara" (R., VI. 3. 8. 4).

Moreover the mention of kings in their splendour and happy subjects who enjoyed not only the blessings of a good government but also the privilege of choosing their king, may be taken as further evidence that there were prosperous towns, strong forts, and well built dwellings, and even palaces for kings. Thus: "Proceed like a king attended by his followers on his elephant" (R., IV. 1. 4. 1). "In the good government of whose realm, the opulent and victorious Ikshvaku prospers, so that the five orders of men are happy as if they were in heaven" (R., X. 4. 18. 4). "Like subjects choosing a king" (R., X. 10. 12. 8). "May he bestow upon us a three-storeyed dwelling and felicity" (R., VII. 6. 12. 2).

Ships and Sea Voyages

It is remarkable that the people in Vedic times were familiar with the sea, ships and sea voyages. Transport by sea was evidently not at all uncommon and voyages were undertaken both for ordinary travel or transport and, what is more important, for trade and even warfare.

Wealthy traders evidently travelled far and wide and visited emporiums where traders from many lands gathered, for the exchange of goods and the earning of wealth. There were boats for the sea, and boats for the rivers; there were many-oared ships, cargo boats and ships suitable for sea fights. It is hardly necessary to point out that such maritime development connoted much knowledge and technical skill in the various arts and crafts accessory to it. There must have been of course ship wrecks too with the loss and suffering they meant, and prayers were offered to the gods for safety in the voyages. The following hymns illustrate this progress:—

"As men pass to several quarters of the earth in a ship" (R., X. 4. 14. 7). "Carry us like a ship in a sea" (R., I. 15. 4. 8). "As merchants covetous of gain crowd the ocean in vessels on a voyage" (R., I. 10. 6. 2). "May we destroy the enemy as waves wreck a ship in the sea" (Y., 135. 9). "We shall get into the hundred-oared ship which is beautiful to behold and which has no leaks" (Y., A. 387. 7). "Varuna (abiding in the ocean) knows also the course of ships" (R., I. 6. 2. 7). "You toss the clouds like ships on a sea" (R., V. 4. 10. 4). "This exploit you achieved, Ashwins, in the ocean, where there is nothing to give support, nothing to rest upon, nothing to cling to, that you brought Bhujyu, sailing in a hundred-oared ship, to his father's house" (R., I. 17. 1. 5). The exploit referred to is as follows: "Tugra was a great friend of the Ashwins; being much annoyed by enemies residing in a different island, he sent his son Bhujyu against them with an army on board ship; after sailing some distance, the vessel floundered in a gale; Bhujyu applied to the Ashwins who brought him and his troops back in their own ship" [Note by Wilson to his trans-

lation of the verse]. "Carry us like a boat in a river" (R., I. 15. 6. 1). "Like a boat that bears passengers across a stream" (R., I. 19. 5. 2). "As a crowded boat goes quivering through the water" (R., V. 3. 2). A beautifully accurate description!

THE WEAVER

The art of weaving was well known and numerous references are made to it. The textile fibre used appears however to be wool and cotton is conspicuous by its absence (*vide* p. 21). Wool was woven into carpets and fabrics for garments. Wool was obtained both from the sheep and goats, and pure herds appear to have been kept and reared, with the object of maintaining the quality of the wool. The use of the needle was also known and stitched garments were presumably in use. Softness was a great attribute of the best carpets and of the fabrics for the best garments. Garments were also embroidered and beautified, befitting them for people in a high station in life. Coarse fabrics like blankets were not neglected and, then as now, they formed the garments of the poor. If wool was thus the sole material which was woven and fashioned into garments, to the exclusion of cotton and linen, neither of which finds any mention, then the rearing of sheep and goats primarily for the sake of their wool, must have formed an important occupation and breeding methods must have reached a high degree of excellence. Types suited to different purposes and adapted to different kinds of soils and climates were probably evolved and perfected, culminating in heavy fleeces of the finest quality for the use of wealthy patrons. The following are some of the references:—

"I seat you on a seat soft as a woollen carpet" (Y., 11. 8). "The kusha grass set soft as a woollen

carpet" (Y., 387. 33). "Lord of the pure he-goat, and the pure she-goat, weaver of the cloth of the wool of sheep" (R., X. 2.˙10. 6). The reference is probably to the owners of large herds of sheep—the captains of the wool industry specialising in high grade wool and in the weaving thereof. "Interweaving in concert like two famous female weavers, the extended threads to complete the web" (R., II. 1. 3. 6). Much skill was evidently attained in the art and fame achieved by expert weavers and the reference almost brings before one the scene of weaving contests or competitions which are sometimes held in our own days. "Bring us handsome garments, bring us cows easily milked" (R., IX. 6. 1. 50). "I understand not the threads of the warp, the threads of the woof nor that cloth which they weave" (R., VI. 1. 9. 2), being a reference to the mystery of life, as it unfolds like a pattern in the loom. "The Riks are its warp threads and the Yajus are its weft threads" (Ath., 487. 6). "Cares consume me as a rat gnaws a weaver's threads" (R., I. 15. 12. 8). Creation is itself referred to in terms of weaving, thus: "These our progenitors who have preceded us, weave it, weaving forwards, weaving backwards, they worship (Prajapati) when (the world) is woven" (R., X. 11. 2. 1). "You (Indra) have cut the angles of the sacrificial post with a needle; he has slain a lion by a goat" (R., VII. 2. 1. 17). The hymn glorifies the prowess of Indra, but the reference to the needle may be noted. "Purified with a woollen filter" (R., VIII. 1. 2. 2), the Soma juice was filtered through a piece of coarse woollen cloth.

The Carpenter and Wheelwright

Among the craftsmen of many kinds who catered to the needs of civilised life in these days, special

mention is frequently made of the worker in wood, the carpenter and the wheelwright, and among many kinds of their handiwork it is the fashioning and construction of waggons, cars and chariots that comes in for special notice. The use of cars and chariots—which are horse-drawn vehicles—for road transport, travel for pleasure, for the chase or for war purposes and the employment of fleet horses for the purpose appears to have been very common, indeed even more than the use of oxen as the transport animal. Among the gifts made by the wealthy chariots and horses figure as much as do cows, jewels, food or garments, all of which provide further ample evidence of a highly developed civilisation. The fashioning of the wheels, the fitting on of tyres, and construction of cars of special shape and design like those with three wheels and three-cornered, with ornamental pillars and decorated awnings, strong frames and axles, are all mentioned in praise of the carpenter. There were cars made of silver and gold, and pillars of copper and iron—all this work being contributed by the jeweller and worker in precious metals, and the coppersmiths and the humbler but more useful ironsmith who should no doubt have furnished the tyre, axle, and axle pins and many another essential part of the car or other vehicle. The deftness and skill of all craftsmen are liberally praised and much respect also paid. The following references will be found interesting:—

"I have received ten horses, clothes and ample food and ten lumps of gold; thou hast given ten chariots with their horses and one hundred cows to the priests" (R., VI. 4. 4. 23, 24). "We have received a well-going chariot of silver yoked with a pair of horses" (R., VIII. 4. 5. 22). "As a carpenter constructs a car" (R., I. II. 4. 4). "As a wheelwright fashions a car" (R., III. 1. 2. 1).

"Repeat (to Indra) pious praises, as a carpenter planes the wood" (R., III. 3. 9. 1). "As the circumference (tyre) encompasses the spokes of a wheel" (R., I. 21. 2. 9). "Like spokes on a wheel, none of you are inferior to the rest, but equal as days of like duration" (R., V. 5. 2. 5), both of which are references which show incidentally that wheels were of the open spoke and felloe type and not solid like the primitive type. "As the Ribhus bend the metal over the chariot wheel (or fix the tyre on the wheel)" (Y., 135. 5). Chariots were highly and richly ornamented, thus: "Gold cars with iron pillars" (R., V. 5. 6. 7). "Pillars of copper for your chariot" (Y., 117. 8).

Cars were provided with awnings, thus: "Fastening the props of awnings in the car" (R., I. 7. 4. 9). The axle had to be very strong, for on it the safety of the car depended, thus: "Depending as a car upon its axle" (R., I. 7. 5. 6). "The heavy loaded axle never heats up, its eternal compact nave never wears away" (R., I. 22. 8. 13). All parts had to be strong and dependable, thus: "May the axle be strong, the pole not defective, the yoke not rotten; may Indra preserve the yoke pins from decay; fix firmly the axle, give solidity to the floor of the car; strong axle, strongly fixed by us be strong; cast us not from out of our conveyance" (R., III. 5. 1. 19, 20) —a verse which reads much like the "Deacon's One hoss shay" of O. W. Holmes, if we may employ an irreverent comparison, but it shows how thoroughly the details of construction were understood.

The fancy chariot of special design belonged to the Ashwins, thus: "Three columned, three wheeled triangular car of the Ashwins" (R., I. 17. 3. 2) (which was a special creation of the dextrous-handed Rhibus). Humbler vehicles or waggons were used for carrying loads, thus:

"Convey them like a waggon our sacrificial food" (R., III. 2. 3. 5). The cart was probably a humbler vehicle than the chariot and even asses were yoked to it sometimes, thus: "Yoke the asses to the cart" (Y., 175. 3).

The chariot had to be very strong to sustain the strain of the fast motion of the dashing horses, and of the bumping and jolting on rough terrain on the field of battle, to bear the heavy loads of the weapons, armour and the attendant guards, while the charioteer himself drove furiously and the warrior shot his arrows, as is graphically described in the hymn below:

"The skilful charioteer, standing in the car, drives his horses before him whithersoever he will ...... The horses raising the dust with their hoofs, rushing on with the chariots, utter loud neighings, retreating not from the charge, but trampling with their fore feet upon the enemies, they destroy them. The quiver, the parent of many, of whom many are the sons, clangs as it enters the battle; slung at the back of the warrior, prolific of shafts, it overcomes all shouting hosts" (R., VI. 6. 14. 5, 6, 7).

The Tanner and Leather Worker

The worker in leather was an important craftsman and had his work cut out for him. This is perhaps what might be expected at a time when cattle were kept in such large numbers and sacrifices formed part of an all-important ritual and when apparently the slaughter of animals was not looked upon with abhorrence. Whether derived from animals which died naturally or from those slaughtered, hides and skins were available for various purposes, some of them surprisingly like those seen at the present time. Cowhides thus furnished apparel, cuirasses for the warrior, aprons for the craftsmen, water-

skins for being inflated and used as floats, leather bottles and carboy-like holders for fluids, huge leather tank-like containers for transporting liquids in carts, cattle troughs, shoes and sandals, leather arm protectors or wards for archers, thongs, reins, straps, harness and saddles for horses, floor spreads, drum leather and so on. Tanning was probably of a high order and leather soft as silk must have been used in the case of wearing apparel, and specially treated when required for preservation against damage by water, spirituous liquor or other fluids likely to cause leather to perish. The following are some of the references:—

"All those round him wear cuirasses of leather" (R., VIII. 1. 5. 38). "Covered as with a vesture of the hide of the cow" (R., VIII. 1. 1. 17). "Throbbing like an inflated skin" (R., VII. 5. 19. 2). Those who may have seen how toddy is transported in carts or in lorries in the Mysore State, can appreciate how accurate the descriptive word 'throbbing' is. It is remarkable that this form of transporting should be as old as the Vedas! The same remark will also apply to the primitive but serviceable type of bellows used at the present time by our blacksmiths and goldsmiths. The Vedic reference is: "As a blacksmith fills his bellows" (R., X. 6. 4. 2). "I deposit the poison in the solar orb, like a leather bottle in the house of a vender of spirits" (R., I. 24. 12. 10). "These are sandals of your victorious feet" (Y., 238. 5). "Chariot, thou art girt with cow hides" (R., VI. 4. 4. 26). "Set up the cattle troughs, bind the straps to it" (R., X. 9. 2. 5). "War drums, fill with your sound both heaven and earth, animate our powers, thunder aloud" (R., VI. 4. 4. 29, 30). "Where are your horses? where are your reins? ......The saddle is on the back of the steed, the bridle in his nostrils" (R., V. 5. 5. 2). "The

ward (leather guard) of the forearm protecting it from the abrasion of the bow-string" (R., VI. 6. 14. 14). "Bring the remains of the soma juice upon the platters and place the remainder on the cow hide" (R., I. 6. 5. 9).

Workers in Precious Metals and Jewellers

Gold and silver were known and the jeweller's art was evidently in great demand, both men and women being as fond of jewelry and personal adornment then as now. Gold armour, necklaces, bracelets and other ornaments, decorations for chariots, trappings for horses were some of the many articles of jewelry which the goldsmith fashioned. References are many, thus: "Bright as burnished gold" (R., I. 14. 4. 2). "Chariots decorated with many kinds of golden ornaments and fitted with golden yokes" (R., I. 7. 5. 4). "They decorate their persons with various ornaments, and lances are borne upon their shoulders" (R., I. 11. 7. 4). "Rich garments, jewels, and precious stones and abundant wealth" (Y., 230. 1). "Wearing golden ear rings and jewel necklaces" (R., I. 18. 2. 14). "Golden necklaces shine upon their breasts, lances gleam on their shoulders" (R., VIII. 3. 8. 11). "He puts on golden armour" (R., IV. 5. 8. 2). "Like wealthy bridegrooms who have decorated their persons with golden ornaments" (R., V. 5. 4. 4). "Like a bride well decorated with ornaments" (Y., 383. 11). "Glowing golden ewer" (R., V. 2. 16. 15). "Soma, be seated in this golden ladle" (Y., 392. 25). "Steeds decorated with golden trappings" (R., I. 18. 6. 4). Gold was also coined, thus: "He received 100 gold pieces and 100 gold necklaces" (Ath., 79. 1, 7, 8).

Other metals were also known and were worked both pure and as alloys in suitable mixtures. Thus:

"Gold, silver and leaden articles have been fabricated" (Y., 257. 4). "Agni, who can melt iron, silver and gold" (Y., 25. 4). "Lead was given to me by Indra—it cures *vatha* diseases" (Ath., 16. 3). Iron and steel were of course fabricated into many articles, for peace-time domestic requirements and for the weapons of war. Many household articles like vessels and utensils of different kinds, ploughshares and sickles and knives and axes were made for the ordinary citizen and mailed armour and swords for the warrior. Thus: "When the mailed warrior advances" (R., VI. 6. 14. 1). "Sharpen my intellect, like the edge of an iron sword" (R., VI. 4. 4. 10). "Sharpens us like the razor in the hands of a barber" (R., VIII. 1. 4. 16). "When the bright edged hatchet is ready for its work" (R., I. 18. 1. 7). "Let the sickles cut down the heavy crop of grain" (R., V. 6. 12. 9, 10). "May the sharp pointed shares cleave the soil and push the ploughed soil on both sides of the furrow" (Ath., 88. 1. 7).

TRADERS

There were traders both large and small; the former sought wealth even by voyaging to distant lands. The earning of wealth and its possession were the mark of the merchant then as now. In other respects he was not very different from those of his class at present though some 30 or 40 centuries of time divide them. Thus: "Take not advantage of us like a dealer" (R., I. 7. 3. 3). "May both buying and selling be of advantage to us" (Ath., 86. 4). "We seek money by investing money; may the wealth so made by trade grow ever-more" (Ath., 86. 5). "As merchants covetous of gain, crowd the ocean in vessels on a voyage" (R., I. 10. 6. 2).

THE PHYSICIAN

Diseases and suffering were as much the lot of humanity then as now and the healing art was much in demand and was evidently highly developed. The Atharva Veda abounds in references to many aspects of the art, and especially to several medicinal herbs and preparations. Many wonderful cures were effected by the Ashwins, the physicians of the gods, and no doubt their human counterparts inherited the lore and followed in their footsteps. The Ashwins learnt the 'mystic science' from Dadhyanch, the son of Atharvan, who had taught it to his son under a vow of secrecy. The son broke the vow and revealed it to the Ashwins. The enraged parent cut off the head of the son, for this act of disobedience and breaking of a sacred vow, but the Ashwins were able to repair the damage, with their newly acquired knowledge. Great and marvellous were their cures thereafter. Blindness, leprosy of many loathsome kinds, jaundice, disfigurement, the ravages of old age, baldness and so on were thus cured; surgical art was also practised, for they could put together mangled bodies. Thus: the maid afflicted with leprosy was restored to resplendent beauty by the curious expedient of pulling her through the chariot wheel of Surya (*vide* p. 8). Shyava who was cut to pieces was brought to life. "You who restored to life the triply mutilated Shyava" (R., I. 17. 2. 24). Gosha, the old maid, who had to remain unmarried in her father's house because she was a leper was cured of the disease. "You bestowed, Ashwins, a husband upon Gosha, growing old and tarrying in her father's dwelling" (R., I. 17. 2. 7). Other references are: "You gave, Ashwins, a lovely bride to Shayayu; you gave sight to Kanwa" (R., I. 17. 2. 18). (Shayayu was a *rishi* who was afflicted with black leprosy and could not marry;

the Ashwins cured him). "You replaced, Ashwins, with the head of a horse the head of Dadhyanch, the son of Atharvan and true to his promise he revealed you the mystic art" (R., I. 17. 2. 22). Surya cured the Harid-roga (yellowing of the skin or jaundice), thus: "O, Surya, remove the sickness of heart and the yellowness of the body" (R., I. 9. 7. 11). This is said to be a *mantram* to be recited for the curing of jaundice. "Nasatyas, you stripped off from the aged Cyavana, his entire skin, as if it had been a coat of mail" (R., I. 17. 1. 10); the reference is to the restoration of the aged and ugly *rishi* to youth and beauty.

In Yajur Anuvakas 304 to 312 are mentioned the different organs of the body, including the internal organs and viscera, showing a knowledge of anatomy, and presumably also a knowledge of the treatment of the ailments thereof.

It is in the Atharva Veda, however, that a variety of the ills that flesh is heir to, find mention together with the names of the herbs used as specific, reinforced of course with the appropriate incantations. Of fevers for instance more than one variety is recognised, thus: "O, fever, bring not with you your companions coughs, lung troubles, chest affections; drive away all fevers, recurring once in three days, once in two days and those which are continuous every day; fevers of the hot season, fevers of the rainy season and fevers of the dewy season" (Ath., 164).

A few of the other diseases treated are rather striking, such as the treatment against premature births or mis-carriages and for the normal development of the fœtus with no malformations (Ath., 439); treatment for making a libertine impotent (Ath., 311); against goitre of the neck (Ath., 198); against jaundice (Ath., 22); against leprosy

and skin diseases (Ath., 124); tuberculosis (*kshaya*) of many kinds (Ath., 168); for the cure of baldness, thus: "may the hair grow as long as reeds and black; strengthen the roots, lengthen the growing ends, straighten the middle" (Ath., 309-310); and several others of a like nature.

The physician was a much respected member of society, and was indeed called the father of the patient, because he gives him life; "He is the father of mortals and the exalted among men" (Ath., 44. 1).

The Potter

This ancient craftsman formed an essential part of the community and his art is referred to in a very characteristic simile, thus: "Agni with the burning rays, destroy entirely our foes who makes no gifts, as potter's ware with a club" (R., I. 8. 1. 16). "Crushing the Rakshasas as a mallet smashes earthen vessels" (R., VII. 6. 15. 21). In addition to the domestic pots and pans, the potter fashioned also the special pots, pitchers and other receptacles for the Soma juice, and milk and curds and holy water at the sacrifices. Pottery of more than ordinary merit was the pitcher with a crooked neck, used for the Soma juice, thus: "The green-tinted juice flows into the crooked pitchers" (R., IX. 7. 3. 13).

The Barber

The barber is not omitted, for he helped to keep men's bodies clean and beautified by the removal of unwanted hirsute appendages then as now. Thus: "Ushas cuts off the accumulated gloom, as a barber cuts off the hair" (R., I. 14. 8. 4). Sharpness is the important attribute of his implement, and the lack of it must have been a familiar and painful experience then

as now, thus: "Sharpen us, like a razor in the hands of a barber" (R., VIII. 1. 4. 16).

All trades and crafts received their veneration and none was looked down upon, thus: "We bow to you carpenters, we bow to you charioteers, we bow to you potters, to you blacksmiths, to you lords of dogs, to you hunters" (Y., 382. 4, 5).

The Mosaic of Vedic Society

Trades and professions were indeed as numerous and varied as any civilised society may require for catering to its needs. Nothing can give a more revealing picture of life in the time of the Vedas than the long list of the various kinds and classes of people who comprised Vedic society, which is specified in Anuvaka 396 of the Yajur Veda. Stray references to other members of the community are not lacking. For instance, there were puppet shows and showmen to entertain the common people, thus: "Like two puppets on an arranged and slender stage" (R., IV. 3. 11. 23). There were sharpers and gamesters who cheated at play (dice) (R., V. 6. 13. 8). Men and women were not plaster saints then, anymore than they are now, and there were also women of easy morals and their patrons, thus: "I hasten to the accustomed place, like a harlot to an assignation" (R., X. 3. 5. 5). "Be pleased with our praises as a libertine by the caresses of a woman" (R., IV. 3. 11. 16).

It is this special Anuvaka however which gives a list which almost looks like a catalogue. It is really an extraordinarily crowded canvas that has been painted, which shows that humanity in Vedic times was not the simple Arcadian type dear to the heart of the poet, but was as complex and sophisticated a mixture as you can see in any modern city, and comprised sinner and saint,

the noble and the mean, the wealthy and fortunate and the poor and the afflicted, the rogue and the simpleton, and the pure and the vile. The list is transcribed below and will form a fitting close to this brief account of Vedic life:— Brahmin, Rajanya, Vaisya, Sudra, thief, eunuch, adulterer, dancer, nattuva (dancing master), drummer, veena player, gambler, secret lover, maidens, lovers, flatterer, unbeliever, courtesan, clown, bald-headed one, hairy one, the too tall one, the dwarf, the fat one, village headman, accountant, graceful girl, hunchback, sluggard, sleepy one, the garrulous one, loud musicians, conchshell blowers, the half-blind one, the deaf one, unmarried elder brother, goldsmith, engraver, potter, chariot maker, carpenter, bow string maker, hunter, fisherman, keeper of dogs, tanner, trader, iron smelter, watchman, ploughman, elephant keeper, shepherd, butcher, rope maker, author, investigator, physician, the star gazer (astronomer), inciter to quarrels (war-monger), women who make scented oils, the barren woman, the leper, the mother of twins, the dumb, the lame, the rogue, and a host of others (Sukla Yajur, Anuvaka 396). The list is not however a catalogue of mere names, but a study of the characteristics of each, in which its special feature or character is touched off by an illuminating epithet denoting the object or quality associated with it. Thus, the ploughman with food, the rich man with prosperity, the woodcutter with light (fire), the dancer with music, the star gazer with scientific knowledge, the investigator with vast knowledge, the thief with darkness, maiden with love, the war-monger with suffering and poverty, the iron smelter with anger, the adulterer with lust, the sower of seeds with auspiciousness, the courtesan with pleasure, and so on.

1174-48 Printed at The Bangalore Press, Bangalore City
by G. Srinivasa Rao, Superintendent